

## PATENT ABSTRACTS OF JAPAN

(11)Publication number : 2000-315488

(43)Date of publication of application : 14.11.2000

(51)Int.Cl.

H01M 2/16  
D21H 13/14

# 34

(21)Application number : 11-123352

(71)Applicant : KURARAY CO LTD

(22)Date of filing : 30.04.1999

(72)Inventor : OMAE YOSHINOBU  
SONEDAKA TOMOYASU  
NAGI HISASHI

## (54) SEPARATOR SHEET FOR BATTERY AND ITS MANUFACTURE

## (57)Abstract:

PROBLEM TO BE SOLVED: To improve absorptiveness of electrolyte, allow thinning, and extend battery service life by mixing in a specific ratio hydrophilic polyolefinic fiber with a specific single fiber fineness.

SOLUTION: Using hydrophilic polyolefinic fiber with 0.0001-0.5 d single fiber fineness, pore size is reduced, separating ability is improved, and this separator is further thinned. From a point of liquid absorptiveness, by using such fineness of olefinic fiber, holding and absorption of electrolyte among fibers regardless of liquid absorptiveness of fiber itself is allowed. In addition, the olefinic fiber has high swelling resistance and can suppress inner resistance even for small fiber degree. This extra film fiber of 2-40 wt.% is added to hold the liquid absorptiveness, suppress the inner resistance, and provide the swelling resistance. Thus, because mechanical performance does not degrade even when using the extra fine fiber, the highly sturdy separator is provided, and swelling of the separator is suppressed, occupation rate of the separator is reduced, and battery service life is extended.

## LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]

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